



DIGISOL®

SWITCHING SOLUTIONS

DIGISOL Dual Stack 10G Ethernet Routing Fiber Switch

DG-GS4600FSE Series



Key Features:-

- Green Energy
- High Reliability & Advanced Security Features
- Ethernet Ring Protection Protocol
- Multicast Features



Introduction:-

DIGISOL DG-GS4600FSE series next-generation 10G stackable routing switch has advanced hardware and software architecture design. These switches provide high availability, scalability, security, energy efficiency, and ease of operation with innovative features such as VSF. It is ideal for aggregation or access layer as its high performance, availability and reliability.

Key Features and Benefits:-

- **Performance and Scalability**
With high switching capacity, DG-GS4600FSE series support wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols. DG-GS4600FSE series fiber switches support AC+12VDC RPS power supplies.
- **VSF(Virtual Switch Framework)**
Virtual Switch Framework can virtualize multiple DIGISOL switches into one logical device, achieving the sharing of information and data tables between different switches. The performance and ports density of virtualized device are greatly enlarged by times under VSF. VSF also simplifies management work for network administrator and provides more reliability.
- **Rich L3 Features**
DG-GS4600FSE series delivers high-performance, hardware based IP routing. RIP, OSPF and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers. With DG-GS4600FSE series, customers could easily achieve Policy based Route(PBR), which is important when they need multi exit application.
- **Strong Multicast**
DG-GS4600FSE series supports abundant multicast features. In Layer 2, such as IGMPv1/v2/v3 snooping and fast leave. L3 multicast protocols such as IGMPv1/v2/v3. With Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detect functions; DG-GS4600FSE series provides great application experience for customer. .2 / 5
- **Easy High Reliability network**
MRPP is Multi-layer Ring Protection Protocol, which is DIGISOL private fast Ethernet ring protocol. Comparing to spanning tree protocol, it has advantages of fast convergence, simple protocol calculation, less system resources cost and so on, which can improve the reliability of Ethernet network operation.
- **Comprehensive QoS**
With 8 queues per port, DG-GS4600FSE series enable differentiated management of up to 8 traffic types. The traffic is prioritized according to IEEE802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video. DG-GS4600FSE series also supports Bi-directional rate-limiting, per port or traffic class, preserves network bandwidth and allows full control of network resources.

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Enhanced Security

IEEE 802.1X port-based access control and MAC-based access control ensure all users are authorized before being granted access to the network. Ingress/Egress Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers information. And for some services are based on time, the product can support time based ACL to match the requirement. Secure Shell (SSH) encrypts network management information via Telnet providing secure network management. RADIUS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

Abundant IPv6 Support

DG-GS4600FSE series supports IPv6 switching and routing based on hardware for maximum performance. With increased network devices growing the need for larger addressing and higher security become critical, DG-GS4600FSE series will be a right product to meet this requirement.

Green-Energy

Temperature monitoring, alarming, automatic cooling, energy saving features are realized on DG-GS4600FSE series. According to the temperature monitoring, Fan speed can be adjusted or stopped to reduce energy consumption and noise.

Hardware Features

	DG-GS4616FSE	DG-GS4628FSE2
Physical Ports	8 x 100/1000Base-X + 4x GE Combo + 4 x 10GBE	16 x 100/1000Base-X + 8x GE Combo + 4 x 10GE
Management Ports	1 x RJ45 Ethernet Management port	
	1 x Console port	
	1 x USB2.0 interface	
Switching Capacity	112Gbps	128Gbps
Throughput	83Mpps	95Mpps
MAC address	16K	16K
Jumbo Frame	10K	10K
ARP Table	4K	4K
Routing Table	1K	1K
ACL Table	1K	1K
Dimension (WxHxD) mm	330 x 44 x 230	440 x 44 x 240
Power Consumption	<22 W	<34 W
Power Supply	AC: 100~240VAC, 50~60Hz + 12VDC RPS	AC: 100~240VAC, 50~60Hz + 12VDC RPS
Operating Temperature	0°C to 50°C	
Storage Temperature	-40°C to 70°C	
Relative Humidity (non-condensing)	10% to 90% non-condensing, Storage 95%	

Technical Specifications:-**MAIN FEATURES****L1, L2 Features**

- IEEE802.3(10Base-T),
- IEEE802.3u(100Base-TX),
- IEEE802.3z(1000BASE-X),
- IEEE802.3ab(1000Base-T),
- IEEE802.3ae(10GBase), IEEE802.3x,
- IEEE802.3ak(10GBASE-CX4)
- Port loopback detection
- LLDP and LLDP-MED
- UDLD
- 802.3ad LACP, max 128 group trunks with max 8 ports for each

- trunk
- LACP load balance
- N:1 Port Mirroring
- RSPAN
- ERSPAN
- IEEE802.1d(STP)
- IEEE802.1w(RSTP)
- IEEE802.1s(MSTP)
- Root Guard
- BPDU Guard
- BPDU Tunnel
- 802.1Q, 4K VLAN
- MAC VLAN, Voice VLAN, PVLAN,

- Protocol VLAN, Multicast VLAN
- QinQ, Selective QinQ, Flexible QinQ
- GVRP
- N:1 VLAN Translation
- Broadcast / Multicast / Unicast Storm Control
- IGMP v1/v2/v3 Snooping and L2 Query
- ND Snooping
- MLDv1/v2 Snooping
- Port Security
- Flow Control: HOL, IEEE802.3x
- Bandwidth Control



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Technical Specifications:-

L3 Features

- Static Routing, IPv4/v2, OSPFv2, BGP4
- OSPFv3, BGP4+
- OSPF multiple process
- LPM Routing
- Policy-based Routing (PBR) for IPv4 and Ipv6
- VRRP
- URPF
- ECMP
- BFD
- IGMP v1/v2/v3, IGMP Proxy,
- Static Multicast Route
- Multicast Receive Control
- Illegal Multicast Source Detect
- ARP Guard, Local ARP proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit
- Anti ARP/NDP Cheat, Anti ARP/NDP Scan
- DNS Client, DNS Relay
- GRE Tunnel

IPv6

- 6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, GRE Tunnel
- ICMPv6, ND, DNSv6
- IPv6 LPM Routing, IPv6 Policy-based Routing (PBR)
- IPv6 VRRPv3, IPv6 URPF, IPv6 RA
- RIPng, OSPFv3, BGP4+
- MLD Snooping, IPv6 Multicast VLAN
- MLDv1/v2, IPv6 ACL, IPv6 QoS

QoS

- 8 Queues
- SP, DWRR, SWDRR
- Traffic Classification Based on 802.1p COS, ToS, DiffServ DSCP, ACL, port number
- Traffic Policing
- PRI Mark/Remark

ACL

- IP ACL, MAC ACL, IP-MAC ACL
- Standard and Expanded ACL Based on source/destination IP or MAC, IP Protocol,
- TCP/UDP port, DSCP, ToS, IP Precedence), VLAN, Tag/Untag, CoS
- REDIRECT and Accounting based ACL
- Rules can be configured to port, VLAN, VLAN routing interfaces
- Time Ranged ACL

Security

- 802.1x AAA
- Port, MAC based authentication
- Accounting based on time length and traffic
- Guest VLAN and auto VLAN
- RADIUS for IPv4 and Ipv6
- TACACS+ for IPv4 and Ipv6
- MAB

DHCPv4/v6 Traffic Monitor

- DHCP Server/Client for IPv4/IPv6
- DHCP Relay/Option 82
- DHCP Snooping/Option 82

Traffic Monitor

- sFlow Traffic Analysis

Security Network Management

- CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6
- Syslog and external Syslog Server
- HTTP SSL
- SNMP MIB, SNMP TRAP
- FTP/TFTP
- SNTTP/NTP
- RMOM 1,2,3,9
- Authentication by Radius/TACACS
- SSH v1/v2
- Dual firmware images/ Configuration files
- 802.3ah OAM, 802.1ag OAM

Data Center Features

- VSF (Virtual Switch Framework)

* Feature available in Future Upgrade



Ordering Information:-

DG-GS4616FSE: DIGISOL 10G Ethernet Routing Switch, 8 x 100/1000Base-X + 4 x GE Combo + 4 x 10GbE, AC + 12VDC RPS power supply

DG-GS4628FSE2: DIGISOL 10G Ethernet Routing Switch, 16 x 100/1000Base-X + 8 x GE Combo + 4 x 10GbE, AC + 12VDC RPS power supply

*Warranty shall be subject to terms and conditions specified in the DIGISOL PRODUCT WARRANTY displayed on the website of the company.

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